



Reestablishment of Radiochemistry Education in the United States

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Is Radiochemistry Important? It might have a few applications.

- Nuclear Energy (Reactor Chemistry)
- Nuclear Waste Management
- Environmental Remediation
- Space Reactors
- Nuclear Security (Nuclear Forensics)
- Production and Use of Radioisotopes



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- Nuclear Energy and Nuclear Weapons programs brought in an emphasis on radiochemistry in the 1940's and 50's
- First educational program was developed in 1946 at the Oak Ridge School for Reactor Technology then distributed to universities around the United States
- Initial university programs were located at RPI, NC State, UC Berkeley, Arizona



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Radiochemistry Ph.D. Degrees Conferred Declining through the Decades

1970's	30-40
1980's	20-30
1990's	10-20
2000	3-10
2010-11	20-30 estimated



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How did that happen?

– Radiochemistry Education Award Program (REAP) 1999-2008

- Washington State University
- University of Missouri
- Clemson University
- Colorado State University
- University of Texas
- Penn State University
- Georgia Tech
- UNLV



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- REAP had only 300k in annual funding
- Today's programs are much more extensive
 - DHS (DNDO): Fellowships, Education Awards, Junior Faculty, Undergraduate Research, MSI Awards (Nuclear Forensics)
 - NRC: Research Grants, Curriculum Development, Student support
 - DOE-NE: Research Grants and Student Support



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Where do we need to go?

Many areas of emphasis are missing.

DHS/DTRA/NNSA Nuclear Forensics

NRC Nuclear Energy

DOE-NE Nuclear Energy

Support will be needed from Environmental
Management and Nuclear Medicine Programs